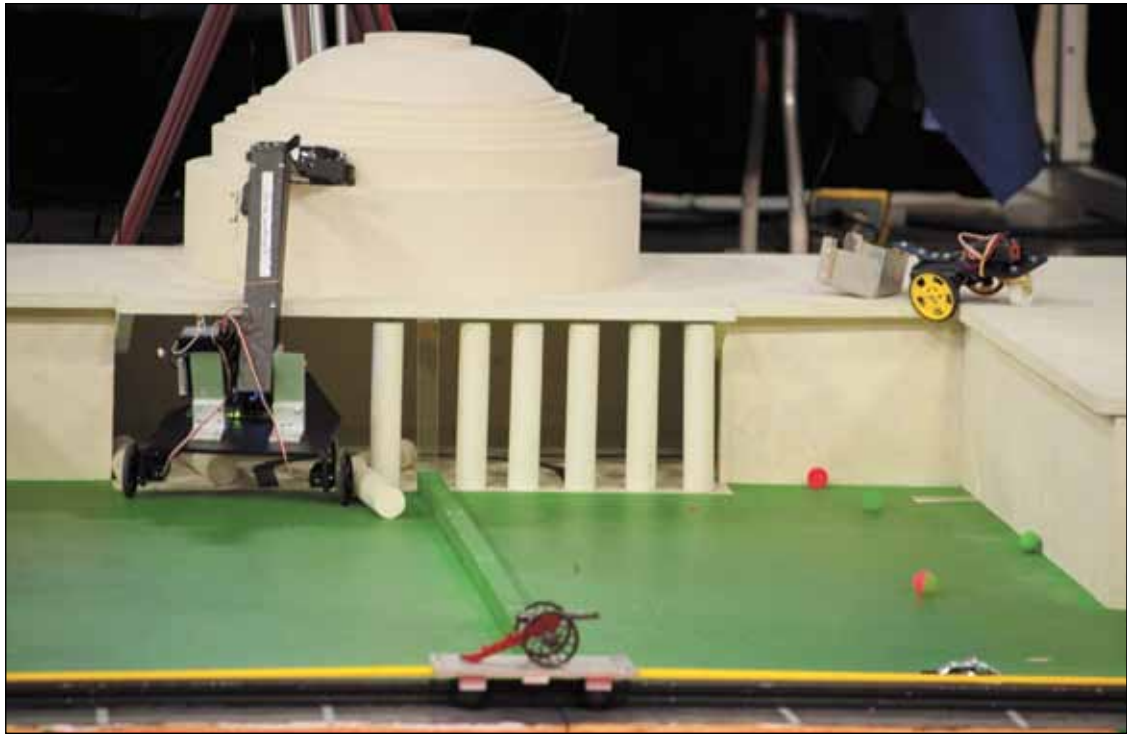


Robots can be hackers, too



ARFA AIJAZI—THE TECH

The theme of this year's 2.007 (Design and Manufacturing I) competition was "MIT's Greatest Hacks" in honor of the Institute's 150th anniversary. The four tasks that the teams' robots had to complete were placing a police car on the dome, pulling the Caltech cannon, dropping five bouncing balls, and inflating a weather balloon on the Harvard football field.

Engagement on Walker continues

GSC says interaction improved

By Stan Gill

STAFF REPORTER

The relationship between student groups in Walker Memorial and the administration has improved in the past few months with the formation of the Walker Memorial Assessment Team. In late March, the Graduate Student Council Task Force on Walker Memorial formally joined with the administration to form the team, chaired by Associate Provost Martin A. Schmidt PhD '88. Representatives from the Undergraduate Association, the Music and Theater Arts faculty, Dean of Student Life Costantino Colombo, Dean of Graduate Student Education Christine Ortiz, and several faculty support staff are also part of the coalition.

The team was formed in response to concerns from student groups who may have to be relocated under a plan to transform

Walker Memorial into the home of MIT's Music and Theater Arts (MTA) program.

Since its formation, the assessment team has been having weekly meetings. They have finished the process of gathering the data they need from student groups with interests in Walker and are now in the midst of analyzing the data so they can properly assess how relocations may occur should the repurposing go forward.

"We're in the process of taking the temperature of each organization," Schmidt said, "We really want to capture the strong feelings of each organization and really make this an interactive process."

The quality of communication between the affected student groups and the administration seems to have greatly improved since the team has been formed. Every student group that requested a direct meeting with the adminis-

Walker, Page 12

End-of-term regulations remain unchanged

A motion to bring end-of-term academic regulations for graduate courses in line with those for undergraduate course was voted down at the April 20 faculty meeting. The motion proposed changes to Sections 2.52, 2.53, and 2.54 of the Rules and Regulations of the Faculty, which address regulations for final examinations and assignments after the last class date. Sections 2.53 and 2.54 differentiate between undergraduate and graduate coursework regulations, respectively. The motion was sponsored by Adam Albright, chair of the Committee on Curricula; Stephen C. Graves, chair of the Committee on Graduate Programs; and Steven R. Hall '80, chair of the Committee on the Undergraduate Program.

During the March faculty meeting, Albright explained that instructors have always raised questions about tests and assignments due during the last week of classes and that the regulations are worded somewhat differ-

ently for undergraduate and graduate situations. The motion aimed to clarify the rules and resolve the differences in language for undergraduate and graduate regulations.

While the motion received the majority of the votes, it failed to receive the 30 votes needed to amend the rules and regulations. As a result, the motion did not pass.

Among those who opposed the motion was JoAnne Yates, deputy dean of the Sloan School of Management. "Rules governing undergrad courses are designed to protect students from having too many deliverables or any tests in the last week of class," Yates said in an email to *The Tech*. "I believe these protections are appropriate for undergraduates, but not necessary for graduate students."

Yates also had concerns that the changes would restrict the options of faculty and graduate students in designing end of the term coursework.

—Derek Chang

T stop's *Pythagoras* is back

Kendall Band Society completes 13 mo. repair

By Joanna Kao

STAFF REPORTER

The familiar sound of bells has been resurrected at the Kendall T Station after a 13-month restoration effort of *Pythagoras* by the MIT Kendall Band Preservation Society. The swinging set of aluminum chimes — controlled via handles mounted on the walls of the station — was created by local artist Paul Matisse for the station 23 years ago. It deteriorated to the point where the platform controls became dysfunctional in 2007 due to wear and tear.

The idea for the restoration project began in the summer of 2009 when Seth Parker, a resident of Newton, contacted Clarise E. Snyder, the concert director of the Music and Theater Arts department, asking who would be able to fix the art piece. Noting the suitability of MIT students for the task, Snyder said, "I immediately thought it was a good match," adding, "I thought that students here would probably be very interested in getting involved."

Snyder emailed music groups and found several interested students and a

faculty member, Course III Technical Instructor Michael J. Tarkanian '00, to oversee the project. "I was a student here, so I've seen the sculpture over the years, and I thought it would be something cool to work on," Tarkanian said. Together, Tarkanian and the core group of students formed the MIT Kendall Band Preservation Society.

The team took down the handles on the platform in April 2010, and during the summer they spent two days taking down the bells and hammers between the

Pythagoras, Page 13

Smile, MIT! You're on the Mood Meter

Media Lab initiative aims to analyze the level of happiness on campus

By Laura Stilwell

Are MIT students happier on Fridays? Do midterms prevent students from smiling? Does the weather influence the mood of the campus?

The Media Lab's Mood Meters, which use four displays across campus to gauge the mood of people passing by, aim to answer these questions. Part of the MIT150 Festival of Arts, Science, and Technology (FAST), the Mood Meters analyze the number and intensity of smiles at MIT through an aggregate of facial expression data received via cameras at the four installations. The first Mood Meter went live on April 6 on the third floor of the Media Lab, and since then three more have been installed in

the Infinite Corridor, the Stata Center, and the Student Center.

The masterminds of the project are Javier Hernandez G and M. Ehsan Hoque G, two graduate students in the Media Lab's Affective Computing Group. Hoque and Hernandez's research focuses on computing emotion and developing technologies that raise awareness of certain affective (emotional) states. FAST provided the two graduate students with support and the opportunity to showcase different elements of their research by placing their work "in the wild," Hoque said.

Although those who interact with the exhibit may try to display sad expressions, all emotions besides happy are simply registered as neutral. The in-

ventors said that, while they could have made the Mood Meters recognize other expressions, both agreed that they wanted to "cheer up the whole mood of MIT," according to Hernandez.

People playing with the meter by intentionally cracking a smile or placing pictures in front of the camera are unlikely to affect the results of the project. Though they could create an algorithm to filter out such readings, both Hernandez and Hoque say they are currently interested in seeing the mood of MIT as people interact with the exhibits and as the MIT community becomes more familiar with the technology. To further encourage interaction, they have made

Mood Meters, Page 11

IN SHORT

Today is the last day for tests in all undergraduate classes. It is also the last day for assignments and tests in all classes with final exams. End-of-term regulations can be found at <http://web.mit.edu/faculty/teaching/termregs.html>; violations can be reported at <http://violations.mit.edu/>.

FAST Light, the culmination of the Festival of Art, Science, and Technology, will take place tomorrow and Sunday in the evening. The event will feature light and sound exhibitions along the Charles.

Memorial Drive will be

closed between Ames St. and Mass. Ave. from 6 p.m. to 11 p.m. both tomorrow and Sunday. Parking will also be prohibited along the section on both days from 12 noon to 11:30 p.m.

Nathaniel C. Thomas '11 has been awarded the Marshall Scholarship, which allows him to study in the U.K. for two years. Thomas will be studying mathematics at the University of Cambridge beginning this fall.

Sunday is Mother's Day. Make sure to call your mother!

Send news information and tips to news@tech.mit.edu.

IS SYRIA LIKE LIBYA?

And does the global community have a double standard?
OPINION, p. 4

MISSION ACCOMPLISHED?

Sort of, but now we need to get out of Afghanistan.
OPINION, p. 4

MULTI-TALENTED

We chat with writer/director/actor/artist Miranda July.
ARTS, p. 9



BALLET AT ITS FINEST

Bella Figura is pure beauty and well worth the trip off campus.
ARTS, p. 9

A LITTLE TOO UNNATURAL

These mice seem to get crazier every issue.
FUN, p. 8

SECTIONS

World & Nation . . . 2
Opinion 4
Fun Pages 6
Arts 9
Sports 16

Data gathered in raid connects bin Laden to terror plot

By Mark Mazzetti and Scott Shane
THE NEW YORK TIMES

WASHINGTON — After reviewing computer files and documents seized at the compound where Osama bin Laden was killed, U.S. intelligence analysts have concluded that the chief of al-Qaida played a direct role for years in plotting terror attacks from his hideout in Abbottabad, Pakistan, U.S. officials said Thursday.

With bin Laden’s whereabouts and activities a mystery in recent years, many intelligence analysts and terror experts had concluded that he had been relegated to an inspirational figure with little role in current and future al-Qaida operations.

A rushed examination of the trove of materials from the compound in Pakistan prompted Obama administration officials Thursday to issue a warning that al-Qaida last year had considered attacks on U.S. railroads.

The documents include a handwritten notebook from February 2010 that discusses tampering with tracks to derail a train on a bridge, possibly

on Christmas, New Year’s Day, the day of the State of the Union address, or the 10th anniversary of the Sept. 11, 2001, attacks, officials said. But they said there was no evidence of a specific plot. An Obama administration official said that documents about attacking railroads were among the first to be translated from Arabic and analyzed.

The materials, along with others reviewed in the intelligence cache, have given intelligence officials a much richer picture of the al-Qaida founder’s leadership of the network as he tried to elude a global dragnet.

“He wasn’t just a figurehead,” said one U.S. official, speaking only on condition of anonymity, who had been briefed on the documents. “He continued to plot and plan, to come up with ideas about targets, and to communicate those ideas to other senior Qaida leaders.”

The crash program across the intelligence community to translate and analyze the documents has as its top priority discovering any clues about terror attacks that might be in the works. Intelligence analysts also were scrubbing the files for any

information that might lead to identifying the location of al-Qaida’s surviving leadership.

Since Sunday night, when President Barack Obama announced the killing of bin Laden in a daring raid, counterterrorism officials have been alert to the possibility of new attacks from al-Qaida to avenge its leader’s death and prove its continuing relevance.

Department of Homeland Security officials have reviewed potential terrorist targets and deployed extra security at airports. And in response to the new evidence seized at the bin Laden compound, the Transportation Security Administration issued a bulletin to rail companies.

But officials emphasized that the information was both dated and vague.

“It looks very, very aspirational, and we have no evidence that it developed beyond the initial discussion,” said Matt Chandler, a spokesman for Homeland Security. “We want to stress that this alleged al-Qaida plotting is based on initial reporting, which is often misleading or inaccurate and subject to change.”

House Republicans are shelving bid to overhaul Medicare rules

By Carl Hulse and Jackie Calmes
THE NEW YORK TIMES

WASHINGTON — House Republicans signaled Thursday that they were backing away from the centerpiece of their budget plan — a proposal to overhaul Medicare — in a decision that underscored both the difficulties and political perils of addressing the nation’s long-term fiscal problems.

While top Republicans insisted that they remained committed to the Medicare initiative, which had become the target of intense attacks by Democrats and liberal groups in recent weeks, the lawmaker who would have to turn the proposal into legislation said he had no plans to do so any time soon.

The lawmaker, Rep. Dave Camp, R-Mich., and chairman of the Ways and Means Committee, said that while he still supported the party’s Medicare approach, opposition from Democrats made it pointless

to proceed.

“I’m not interested in talking about whether the House is going to pass a bill that the Senate shows no interest in,” Camp said in an appearance at the National Press Club. “I’m not interested in laying down more markers. I am interested in solutions.”

Coupled with remarks by other House Republican leaders, his statement suggested that the party’s Medicare proposal had been shelved, even though the party’s lawmakers had taken a risky vote to pass the budget in the House just last month, and in the past two weeks had attempted to sell it to constituents in often-stormy town halls meetings.

Republicans suggested that they would continue to press to rein in the growing costs of Medicare, even if not through the current proposal, which would transform the program into one in which the federal government subsidized the purchase of private health insurance coverage by

Americans 65 and older.

Putting aside the proposal would remove one of the biggest points of contention between the parties as they address both the nation’s long-term budget problems and the more immediate need for an agreement on raising the federal debt limit.

The development came as Vice President Joe Biden held a first negotiating session with members of both parties to try to find a deal that would allow Congress to raise the debt ceiling this year.

Republicans are demanding spending cuts and other measures to reduce the budget deficit as the price of support for raising the debt ceiling.

The Republican Medicare plan was never likely to be adopted as part of any deal on the debt limit. But the decision by Republicans to pull back the proposal was a tacit acknowledgment that the politics of entitlement reform remain so volatile that pressing ahead in the face of intense Democratic opposition could cost the party dearly at the polls.

US seeks to financially aid Libyans in rebel areas with seized assets

By Steven Lee Myers and Rachel Donadio
THE NEW YORK TIMES

ROME — The United States announced Thursday that it would try to release some of the more than \$30 billion in assets seized from Libya’s leader, Moammar Gadhafi, as international officials said they would create a fund to give money directly to the Libyan rebels.

And for the first time, Qatar put the question of supplying arms to the rebels on the table, but no agreement was reached.

The developments came Thursday at a meeting in Rome that appeared to bolster the NATO-led military intervention. Hosted by Italy and Qatar, it brought together officials representing two dozen NATO nations, Arab countries, and international organizations.

The meeting was aimed at intensifying diplomatic and financial pressure on Gadhafi’s government.

The military operation, which to critics seems stalled, has largely succeeded in its stated mission of stopping the advance of his forces but has not done enough to stop indiscriminate shelling in cities like Misrata and Zintan or force Gadhafi to step down.

“We shall not leave a divided and insecure Libya as a playground for Gadhafi’s mercenaries,” said Italy’s foreign minister, Franco Frattini. “Our message must be that we shall keep up the pressure, using all legitimate means and with the aim also of convincing Gadhafi’s entourage to join the many who have already defected.”

Above all, the international officials said they would create a special fund of hundreds of millions of dollars to allow humanitarian and other financial assistance to flow into rebel-controlled parts of Libya despite United Nations sanctions that apply to Gadhafi’s government.

Libya’s opposition has asked for

billions of dollars’ worth of help, including cash to pay salaries and provide services in the parts of the country under the control of the rebels, led by a group called the Transitional National Council. Frattini acknowledged that so far nations had provided only a fraction of that.

But Thursday, Qatar’s prime minister, Sheik Hamad bin Jassim Al Thani, said that Qatar would put \$400 million to \$500 million into the fund, and that Kuwait had put in \$180 million. “I don’t think we have shortage of money, we had shortage of mechanism,” Thani said. “Now, we agreed on the mechanism, that’s what was important.”

Frattini and Thani said the fund would be managed by a five-member steering board composed of three Libyans chosen by the Transitional National Council; a representative of Qatar; and a representative from either Italy or France on a six-month rotating basis.

Local Iraqi leaders blame branch of al-Qaida for yesterday’s attack

BAGHDAD — A suicide bomber attacked a police training center Thursday in the predominantly Shiite city of Hilla, south of Baghdad, killing 25 people and wounding at least 75 in the second major bombing in Iraq this week.

There was no immediate claim of responsibility, but officials blamed al-Qaida in Mesopotamia, a Sunni insurgent group that has conducted dozens of attacks in the city in recent years, including several in which the police and security officials were targets.

The attack was the deadliest in Iraq since insurgents promised to increase violence in response to the killing of Osama bin Laden in Pakistan on Monday.

Coming after a bombing attack killed 10 people in a Shiite neighborhood of Baghdad on Tuesday, the violence underscored the continuing challenges for Iraqi security forces to secure the country as U.S. forces withdraw by the end of the year.

Although there are far fewer attacks than at the height of the sectarian war in 2007, there are still bombings and assassinations virtually every day.

—Michael S. Schmidt, *The New York Times*

A year after devastating damage, gratitude in a tornado-torn town

YAZOO CITY, Miss. — Just more than a year ago, when the 170-mph winds of a deadly tornado ripped the eastern stretch of this town to shreds, Noreene Girard could do nothing but cry.

“The trauma of it was unbearable,” she said, recalling the devastation that struck this struggling part of the Delta region.

The tornado damaged 300 homes, killed 10 people and caused \$50 million in damage, earning its place as the worst natural disaster in Mississippi since Hurricane Katrina.

But this week, Girard was shedding tears of a different sort, as members of Hillcrest Baptist Church hoisted a fresh white steeple above the timber frame that is to be their new sanctuary. It was a moment that, to Girard and others, felt like a crowning achievement against the storm.

“To be down for so long and finally feel that you are coming back up?” she said. “I just started to cry.”

The healing that has taken place here is only just beginning in the rest of the region, as cities and towns continue to search for the missing and assess the destruction spawned last week by a barrage of tornadoes from Texas to Virginia.

—Susan Saulny, *The New York Times*

House passes bill to reinstate auctions for offshore drilling

WASHINGTON — With rising gasoline prices and skyrocketing oil company profits as a backdrop, the House approved a bill Thursday to force the Obama administration to accelerate oil lease sales in the Gulf of Mexico and off the Virginia coast.

The 266-149 vote, largely along party lines, was a skirmish in the larger battle between Republicans and Democrats to capitalize on consumer anger over the price of gasoline, which has now passed \$4 a gallon in most parts of the country.

The bill would reinstate auctions for the right to drill offshore, which have been pushed back by the administration to allow more time for environmental and safety reviews.

Opponents of the measure said the Republican-sponsored bill, titled the Restarting American Offshore Leasing Now Act, reflected “amnesia” about the dangers of offshore drilling barely a year after the Deepwater Horizon blowout killed 11 people and spewed about 200 million gallons of oil into the Gulf.

Rep. Nancy Pelosi, the House Democratic leader, said Republicans were pushing an energy agenda that benefited multinational oil companies without providing relief for U.S. motorists.

“Republicans have brought to the floor another ‘drill only’ bill that would not bring down prices at the pump,” Pelosi said. “It’s a boon to Big Oil that would make another catastrophic oil spill more likely.”

—John M. Broder, *The New York Times*

Climate changes hinder crop yields in some areas, study finds

Global warming is already cutting substantially into potential crop yields in some countries — to such an extent that it may be a factor in the food price increases that have caused worldwide stress in recent years, researchers suggest in a new study.

Yields were down by more than 10 percent in Russia and by a few percentage points each in India, France, and China compared with what they probably would have been without rising temperatures, according to the study, which focused on the years 1980 to 2008.

Corn yields were off a few percentage points in China, Brazil, and France from what would have been expected, said the researchers, whose findings were published in Friday’s issue of the journal *Science*.

Some countries saw small gains from the temperature increases, however. And in all agricultural countries, the extra carbon dioxide that humans are pumping into the air acted as a fertilizer that helped to encourage plant growth, offsetting some of the losses from rising temperatures caused by that same greenhouse gas.

The study’s authors found that when the gains in some countries were weighed against the losses in others the overall global effect of climate change on crop yields has been small so far: losses of a few percentage points for wheat and corn from what they would have been without climate change. The overall impact on production of rice and soybeans was negligible.

But the authors of the study — David Lobell and Justin Costa-Roberts of Stanford University and Wolfram Schlenker of Columbia University — pointed out that temperature increases were expected to accelerate in coming decades, making it likely that that the impact on food production will worsen at a time when demand is expected to rise sharply.

—Justin Gillis, *The New York Times*

WORLD&NATIONWORLD&NATIONWORLD&NATIONWORLD&NATIONWORLD

Obama should use bin Laden victory strategically

Osama, from Page 4

to Pakistan's notoriously perfidious Inter-Services Intelligence Directorate.

Ultimately, it does not matter whether Pakistan is a faithless ally or merely an inept one — it has proven itself unreliable and incapable of aiding U.S. interests. Our commander-in-chief may have limited ability to influence the success of missions like Abbottabad, but he does get to set the broad strokes of foreign policy. Regardless of how much credit Obama receives for bin Laden's death, the discovery of the al-Qaida leader so embarrassingly close to Islamabad vindicates the president's recent efforts to realign the United States away from Pakistan and toward India.

Strategic realignment in southwest Asia will not be without its costs. Although much has been done in the past few months to reorganize NATO's logistics and run more of our supplies through Russia, it is hard to imagine success in defeating the Taliban without proactive support from Pakistan. In addition, our partner in Afghanistan, Hamid Karzai, has shown himself to be an even greater scoundrel than his 2009 vote-rigging suggested. The problem is not just that he is corrupt — he consistently over-estimates his negotiating power and tries to extort more from the U.S. than his position warrants. As a means of cajoling the United States, he has suggested all manner of geopolitical alli-



ances with which to replace us. China, Pakistan, and even the Taliban, Karzai imagines, could act as guarantors of his security. None of these partnerships are likely to materialize if the U.S. departs, yet it seems the only way to convince Mr. Karzai of that is to leave him alone for a few years and let him have a go at his fantasies. Obama would do well, therefore, to make the best lemonade he can out of his lemons. The death of bin Laden gives the president

the capital to dictate AfPak policy; he should use it to stick to his 2014 deadline for withdrawal from Afghanistan and accelerate our growing partnership with India. The downside risk of leaving Pakistan and Afghanistan to the bed they have made is that some rival state — or a resurgent al-Qaida — will fill the void. The odds, however, are unlikely; China, the odds-on favorite for AfPak void filling, already has its hands full with one basket-case nuclear ally — they

would do better to compete with the U.S. for India's affections than adopt another North Korea to its west. Russia, given its Chechnya problem, is unlikely to forge any partnership that would be disturbing to America. Virtually all the Muslim countries worth mentioning are too pre-occupied with Middle East turmoil to begin an adventure elsewhere. And as for the prospect of al-Qaida filling the void, the 2014 departure date leaves NATO plenty of time to ensure that outcome remains a hypothetical. If the geopolitical case for leaving Afghanistan were not strong enough, there are domestic reasons as well. Exploding entitlement programs and runaway spending have left Washington in a fiscal crunch. Operations in Afghanistan have cost the U.S. roughly \$40 billion per year since their inception. While this figure may be a paltry sum in a world of multi-trillion dollar budgets, every little saving means more foregone taxes and more preserved services for American citizens. There were plenty of turns that the Afghanistan war could have taken that would have led us to a better point than where we are today. Nonetheless, we stand at as opportune a moment as we are likely to see. There is uncertainty whenever any alteration is made to the status quo, but this uncertainty cannot be allowed to paralyze our decision-making. The time has come to leave Afghanistan.

OPINIONOPINIONOPINIONOPINIONOPINION

Do you blog?

The Tech is starting a blog this semester.

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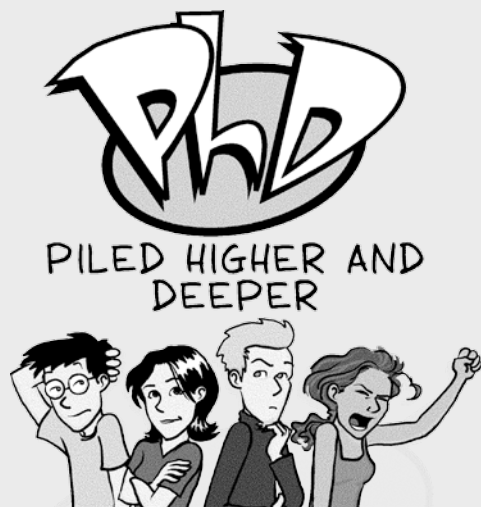


by Jerry Holkins
and Mike Krahulik

Part The Rusted Chains



The Value Proposition

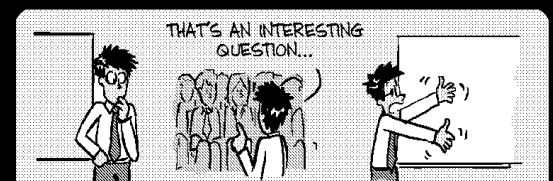


by Jorge Cham

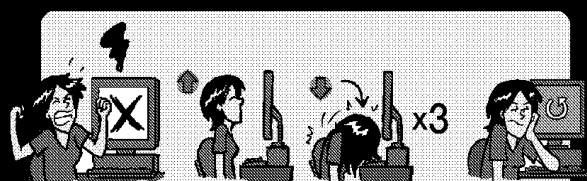
ACADEMIC SPECIAL MOVES



Free Food Hadouken



Pause Block Deflect



Crash, Bang Head, Reboot



Lab Equipment Magic Dance



Meeting with Professor Button Mash



"Research"

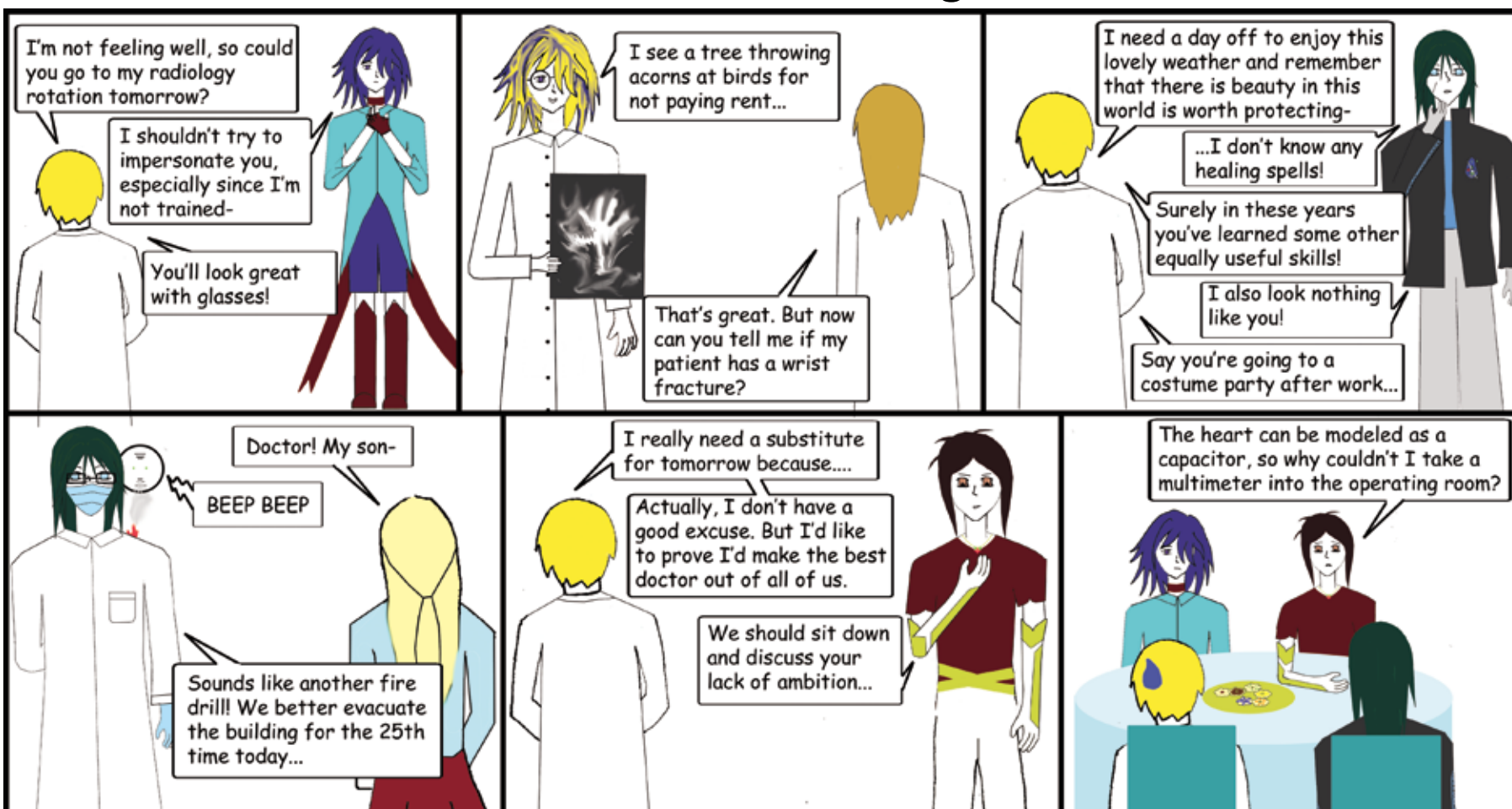
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JORGE CHAM © 2010

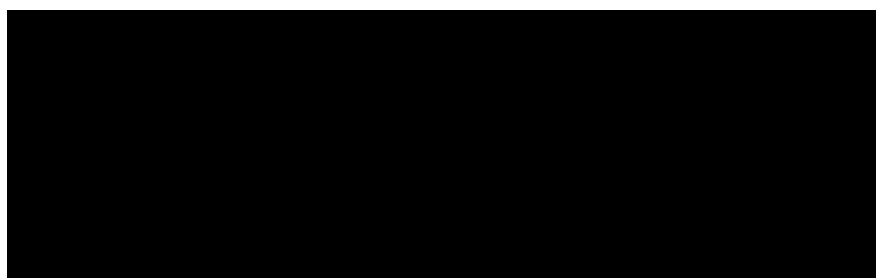
Unnatural Selection by Meisel/Tonn/Wang



Somewhere on the Search for Meaning



Dilbert by Scott Adams



Sudoku

Solution, page 13

	9		3	4	1			
						7		
5			7		8		4	9
	5		2				7	4
	3						8	
9	7				6		5	
6	4		1		7			2
		1						
			6	3	4		1	

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

Techdoku

Solution, page 13

2-		24x		10x	
5x	5			9+	
	216x		5-		4
6x			300x		2÷
		5÷		24x	
2-					3

Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1–6. Follow the mathematical operations for each box.

Tony Rauch's short stories are a worthy solution to that pre-finals slump

Rauch's *eyeballs*, the perfect solution to that artistic funk that visits us more often than we would like, is almost as if Tim Burton had injected some of his slightly darker ideas into van Allsburg's illustrations. But while Burton's *The Melancholy Death of Oyster Boy & Other Stories* (1997) was often downright disturbing, *eyeballs growing all over me ... again* carries a stream of strangely cheerful acceptances of the ex-

he clings onto stark reality. "Send krupac through the portal" tells the tale of a young man who decides to journey through parallel universes. His motives, however, are less lofty: The young man's state of mind is not unlike post-Summer Tom in *(500) Days of Summer*, and he sojourns in the hopes that somewhere out there, his love interest will reciprocate his feelings. A fleeting sense of foreboding comes from Hinrich, a man who had tried unsuccessfully to gain

Such lucidity also comes in the form of unlikely characters and situations. There's the paperboy-spy, a minor with that kind of wisdom and understanding that only children have, who encounters a scientist growing identical humanoids in fish tanks in his basements. (Incidentally, he also makes me want to belt out "Little People" from *Les Misérables*.) The poor protagonist in "giant chicken menacing from above" brings together comedy and tragic social commentary, bemoaning, "I try everything — poking fun at the inner existentialism of the lonely starkness of the modern design magazines, inciting brawls and rural pancake houses, faking flamboyant panic attacks at solemn basilicas ... — hoping to find the secret of life hidden amongst its many layers of meaning." In "people have been drifting away lately," Rauch describes a world where "you'll see someone scattering down the street, flat as can be, caught in the wind like an old newspaper."

Most unnerving is the nonchalance with

The ending to each of these tales is often anti-climactic, and often humorous. Are we ever meant to really know what is going on? Probably not. But in the bizarre situations that Rauch crafts, we often see reality: Somehow those subtle layers of completely implausible situations reopen that door outside the box. It's an escape from the MIT grindstone — and a way out of the dreaded artistic funk.

*Cambridge & Boston Area



Mood Meters aggregate, report student smile data

To address privacy concerns, developers say Mood Meters only collect smile metrics

Mood Meters, from Page 1

all the data they collect during the project visible — in real time — on their website, <http://moodmeter.media.mit.edu>.

The success of the Mood Meter is apparent from the crowds of visitors seen collecting around the screens and students stopping in the hall to smile and observe how the Meter fluctuates.

People were not always so enthused about the project, especially due to privacy concerns. Prior to the deployment of the project, Hoque and Hernandez met with Information Services and Technology (IS&T), the Security and Emergency Management Office (SEMO), and Audio Visual Services to explain that the Meter does not record images or any personal information of those passing by. Instead, they said, the installation collects data from a live feed of, according to Hernandez, “just the number of smiles” and “just the number of people.”

Hernandez and Hoque were open about the objective of the project from the beginning and maintained that there never was going to be any image recording. Because of this, they said they were able to win over the concerned parties and obtain the permission needed to install the Mood Meters. Hoque said that with “transparency from the very beginning, people can be very supportive and understanding.”

Although Hernandez and Hoque have received countless suggestions on what they could do next with their Mood Meter, such as one Twitter user’s suggestion to “install this meter immediately in the U.S. Senate,” neither have any future plans for the Mood Meter at the moment; instead, they both said they would prefer to focus on research. Nevertheless, they hope that by engaging the community and addressing the

Both developers agreed that they wanted to ‘cheer up the mood of MIT,’ Hernandez said.

issue of privacy, they have served as a voice for this type of technology, paving the way for future applications.

The idea of assessing emotions with the use of technology is not necessarily new. For example, the Dutch Applications Company has created an application for iPhone and Android called Happy Map that questions users in Belgium about their mood and then generates a map of the mood levels across the country. However, such data can be unreliable due to user’s subjectivities. Technology employed in the Mood Meter instead aims to provide a more accurate and objective method of assessing moods and emotions.



“Mood Meters,” a FAST Art Festival installation, have taken up residence in the Infinite Corridor, the Stata Center, the Media Lab, and the first floor of the Student Center.

15.366 Energy Ventures

Explore how your innovative technology and entrepreneurial concepts will apply to significant opportunities in the energy sector!

Lecture: R EVE (4-7 PM) 32-124



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File Edit Options Buffers Tools Im-Python Python Help
from new_skills import *

def learnMarketableJobSkills():
    return linux, OSX, javascript, applescript, perl, python, PHP

if self.interest == True:
    print "E-mail join@tech.mit.edu"

-----F1 joinTechno.py (Python)--L1--Top-----
```


GSC pleased with engagement on Walker space

Feasibility of repurposing still under review; planning ahead for student group relocation

Walker, from Page 1

tration has been granted one. “I would like to complement Professor Schmidt on the excellent job he’s done improving student engagement,” former GSC President and student member of the assessment team Ulric J. Ferner said. “It’s not easy to collectively survey student opinion like this. I’m amazed

at the amount of work that’s been done, the progress that’s been made, and the transparency of the whole process.” Current GSC President Alex Evans, who was part of the original GSC task force before the assessment team was formed, agreed with this sentiment. The GSC, in conjunction with the Black Students’ Union, has been hosting group meetings to gather input from the Walker groups. This also

ensures that there is a standardized method for accurately gauging and representing student opinion. “I don’t plan on changing anything with how the process is going,” Evans said. “We just want to do the best we can to get the info out there.” The feasibility of the repurposing project is still under review. The assessment team is also reviewing scenarios for the student groups should the project go forward, looking pri-

marily at temporary co-location of groups in Walker as well as dual use of what would become MTA spaces. However, a decision is still a long way from being made. “There are substantial technical issues that we are still in the midst of reviewing,” UA student representative William F. Steadman ’11 said, “There are a lot of foreseen and unforeseen circumstances that we need to take into account, including

potential structural changes to the building.” Like GSC officials, Steadman was also pleased with the administration’s engagement process. The team hopes to deliver the final report to the decision-making administrators by the end of May or early June, but no hard deadline has been set. *The Walker Memorial Assessment Team can be reached at walker-in-put@mit.edu.*



Several of Walker Memorial’s student groups, pictured in this December 2010 file photo. The Walker Memorial Assessment Team is evaluating the feasibility of using Walker as a space for Music and Theater Arts, which could mean students groups will need to find new homes.

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Students, faculty spearhead restoration

23 years of dirt and deterioration fixed by Kendall Band Society

Pythagoras, from Page 1

tracks. “That was from around one in the morning to about four in the morning. ... That’s the only time we can go down there,” said Shaymus W. Hudson ’12, who joined the project last spring after receiving an email from Tarkanian. “It was a lot of fun though.”

In January of this year, the group set a goal of completing the restoration of *Pythagoras* by the open house on April 30. According to Tarkanian, they worked an average of six to eight hours per week during most of the term, except during spring break, when they worked all day. The team, however, was restricted to working on the platform handles outside rush hours, while reconstruction of *Pythagoras* was limited to the over-night hours.

The group was also stymied by the fact that they did not know which parts were broken before taking the sculpture apart. “We just evaluated as we went,” Tarkanian said.

‘I thought that students here would probably be very interested in getting involved.’
—Clarise E. Snyder
MUSIC AND THEATER ARTS

Students involved with the restoration effort also took the op-

portunity to clean the bells, which had accumulated years of dirt and grime. “We built a lathe so that we could take scour pads and make it all shiny. After the first one was done, it was so pristine. It was pretty amazing,” Hudson said. “After we finished putting everything up,

‘It was pretty great seeing all that work finished and seeing the whole entire product in operation.’

I remember one of us went up to it and rotated it and started playing with it. You could see all the bells moving again; it was pretty great seeing all that work finished and seeing the whole entire product in operation, and it looks really, really nice.”

The group is planning to restore the remaining two T-stop sculptures, *Galileo* and *Kepler*, sometime this summer, although no concrete timeline has been set. Tarkanian predicted their restoration would not take as long as that of *Pythagoras*. The group also has plans to create CAD drawings so future restorations have somewhere to begin. “We’re kind of maintaining the sculpture long-term, so now that there’s an official MIT student group involved, hopefully it will be taken care of well into the future,” Tarkanian said.



Pythagoras, the musical art installed in the Kendall T station, was recently restored by MIT’s Kendall Band Preservation Society. The society plans to repair smaller Kendall installations this summer.



Paul Matisse, the artist behind the *Pythagoras* musical sculpture in the Kendall T station, attends the Kendall Band re-installation ceremony on April 30. In 2010, the MIT Kendall Band Preservation Society embarked on a 13-month restoration project to repair the hanging set of hammers and chimes.

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Solution to Techdoku
from page 8

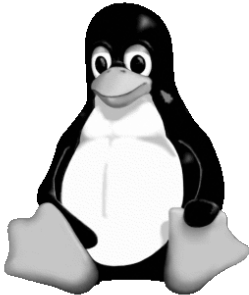
6	4	3	1	2	5
1	5	4	2	3	6
5	3	2	6	1	4
3	1	6	4	5	2
2	6	5	3	4	1
4	2	1	5	6	3

Solution to Sudoku
from page 8

8	9	7	3	4	1	5	2	6
4	1	2	5	6	9	7	3	8
5	6	3	7	2	8	1	4	9
1	5	8	2	9	3	6	7	4
2	3	6	4	7	5	9	8	1
9	7	4	8	1	6	2	5	3
6	4	5	1	8	7	3	9	2
3	8	1	9	5	2	4	6	7
7	2	9	6	3	4	8	1	5

Solution to Crossword
from page 6

P	R	E	A	M	P	G	O	U	G	E	D			
R	E	D	F	I	R	O	N	P	A	P	E	R		
E	T	E	R	N	E	C	L	I	N	I	C	A	L	
L	I	N	E	N	S	R	I	N	G	S	I	D	E	
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			S	T	A	Y		T	E	E	N	I	E	
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	T	R	I	M	M	E	R		E	L	O	I	S	E
	S	P	E	A	R	S		S	O	R	T	E	D	



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Fervor roils markets as IPO backlog builds

By Evelyn M. Rusli
THE NEW YORK TIMES

Companies are lining up to go public. Market conditions are favorable. Investor appetite is strong.

But not all the stocks are sure bets.

Following a string of healthy debuts, the pipeline for initial public offerings is bursting. In all, 168 companies are waiting to go public in the United States — the largest backlog since 2000, according to Renaissance Capital, an IPO advisory firm. The group, which includes Dunkin’ Brands, LinkedIn, and Toys R Us, is aiming to raise some \$38 billion.

The situation is similar overseas. Glencore, the world’s largest commodities trader, is set to go public with a dual listing in Hong Kong and London. The offering, at roughly \$10 billion, is on track to be the largest IPO this year.

“The IPO market is a cycle, it’s bought on hope, held in greed and sold in fear — we’re in the first stage,” said John E. Fitzgibbon Jr., founder of

the research firm IPO Scoop.

The pickup in public offerings is natural, given the strength of the broader equity markets. After suffering a setback during the European debt crisis, the Standard & Poor’s 500-stock index is up 28 percent since August. It tracks the improvement in the deal-making environment, with mergers and acquisitions at their highest volume since before the financial crisis.

“There is a connection between the M&A market and going public,” said David J. Goldschmidt, a lawyer at Skadden, Arps, Slate, Meagher & Flom who specializes in capital markets transactions. “Today we have a stronger M&A market and stronger stock market, which gives private companies the option to take a company public or to sell it.”

Investor interest is high, too. In one sign, traffic to Renaissance Capital’s website rose 40 percent in April to 400,000 unique visitors and is on track to reach a record in May. Fitzgibbon of IPO Scoop says the number of subscribers to his site has

doubled from last year.

With investors clamoring, corporate issuers are increasingly gaining the upper hand in pricing their stocks. In April, the car rental company Zipcar sold its shares at \$18 — a couple of dollars above its expected range. Zipcar currently trades at \$25.

About 30 percent of offerings have priced above expectations so far this year, according to Renaissance Capital. In 2010, only 12 percent did the same.

“Last year, we had a market where investors had been in the driver’s seat,” said Kathleen S. Smith, a principal at Renaissance. “Power is shifting, while investors are still driving, it’s a better market for issuers.”

Some companies are being overly ambitious about pricing, as their stocks quickly give up their first-day gains. An index that tracks the performance of companies after their IPO has risen just 2 percent this year. Benchmarks like the S&P 500 and the Russell 3000 index, which measures the performance of the 3,000 largest American companies, have

gained 6 percent.

On Thursday, China-based NetQin, a mobile security services company, went public on the New York Stock Exchange, pricing at \$11.50 a share, the top of its range. On the first day of trading, the stock fell 19 percent to close at \$9.30.

“We’re not really concerned about stock prices today or tomorrow,” said NetQin’s chief financial officer, Suhai Ji. He said he was more focused on the strategic value of going public, including the cachet of a listing on the NYSE and building a platform for partnerships in the United States.

Internet plays are giving analysts the most pause. Amid the rise of Facebook, technology startups are beating a path to the public markets, looking to cash in early while investors still have Silicon Valley fever.

Several social media startups, valued in the multibillion-dollar range, are preparing to go public. The professional social network LinkedIn, which is trading at a \$2 billion-plus valuation in the secondary markets,

filed for its IPO in January. Groupon, a popular social shopping site, is said to be in talks with bankers as it prepares for an offering later this year.

But the fervor has some analysts worried that valuations are becoming unhinged from fundamentals.

On Wednesday, Renren, often described as the Facebook of China, rose 29 percent on its first day of trading. The social networking site, which lost money last year, is now worth \$6.6 billion, some 86 times last year’s revenue.

At that level, the Chinese social networking site is trading at a premium to its much larger and more profitable counterpart in the United States. The privately held Facebook, whose revenue hit \$2 billion last year, is trading at 40 times sales on a secondary exchange. The Internet search giant Google trades at six times in the public markets.

“I don’t know about some of these valuations,” said Peter Falvey, a managing director at Morgan Keegan. “People are getting really excited, but it could end badly at some point.”

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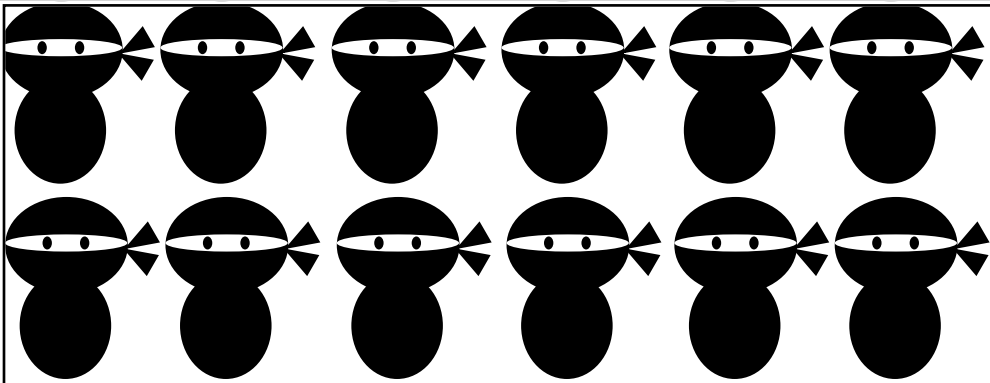
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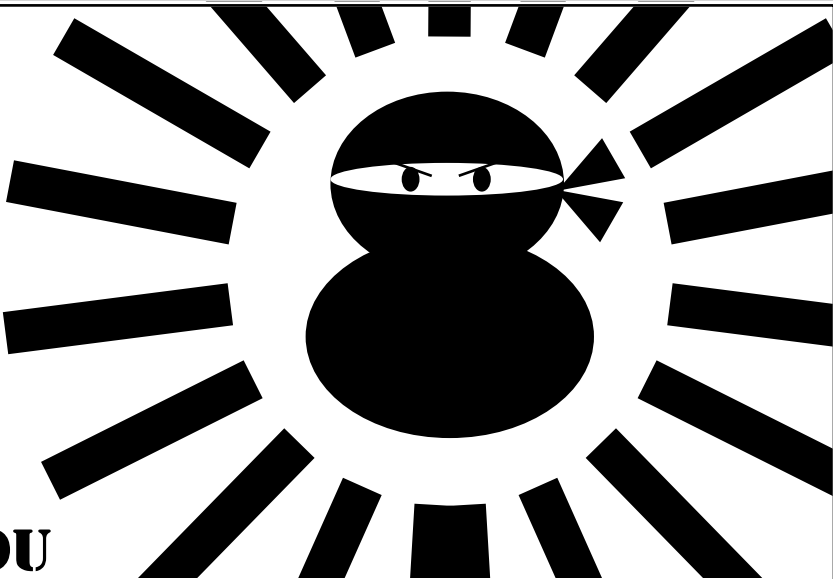
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Engineers finish NEWMAC tournament with record of 13-4

The MIT Men's Tennis team played in the NEWMAC tournament last weekend, hosting Wheaton, Coast Guard, and Babson. The top-seeded Engineers swept both their semifinal and final matches en route to their 13th straight conference title.

quick victory, getting six wins in the best-of-nine matchup in just 73 minutes. MIT opened with three doubles wins, with the teams of Ken Van Tilburg '11 and Matthew T. Skalak '13, Curtis L. Wu '14 and Larry Pang '13, and Andrew C. Cooper '13 and Edwin M. Zhang '14 winning 8-3, 8-2, and 8-4, respectively.

decided.

In the tournament final against Coast Guard on Sunday, the Engineers once again started out with three doubles wins and needed to win only two out of six singles matches for the championship. Zhang and Pang were the first two Engineers to finish, winning 6-3, 6-0, and 6-3, 6-4, respectively.

Pang was named the Most Outstanding Player of the tournament.

W. Hagymas was named Coach of the Year. Seven MIT players were selected for the All-Conference team, on which MIT took all three doubles positions and four of the six singles spots.

With the two wins, the team is now 5-0 against conference opponents this year and improves its overall record to 13-4. Next up for the Engineers are the NCAA Regional Championships and NCAA Finals this weekend. They will also wait to see whether they are selected to play in the NCAA Team Championships.

Shotgun team finishes inaugural season

In its inaugural season, squads from the MIT Sporting Clays Association took fourth and fifth place at the New England Clay



flying away from the shooter at 30 mph are targeted 30–40 yards downrange. Hitting the target requires identifying its trajectory, correcting for lead, aiming, and firing within 1° accuracy — all within a second. Cumulative scores are tabulated from four rounds of 25 targets.

Despite cold and windy conditions on the day of the tournament, MIT shooters excelled. Overall, MIT lead the pack of Boston area schools, beating squads from Harvard, Northeastern, and Tufts. Squads from Yale and Vermont took the first three spots overall in the tournament. Individually, Thomas M. Cervantes '11 placed third in the men's division, hitting 90/100 targets, while Elaina T. Chai '12 placed fourth in women's with a score of 74/100.

The Clay Cup concludes MIT's first season, and with one year under its belt, the club is looking forward to shoots with Vermont and Army next year and more broken targets downrange.

—Charles Lin, Team Representative

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